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CAMPAIGN PLANNING: The Search For Method

**A Monograph
by
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U.S. Marine Corps**



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SEP 16 1991
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**School of Advanced Military Studies
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Fort Leavenworth, Kansas**

Second Term 90-91

Approved for Public Release; Distribution is Unlimited

91-10422



REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 05/05/91		3. REPORT TYPE AND DATES COVERED MONOGRAPH	
4. TITLE AND SUBTITLE CAMPAIGN PLANNING: THE SEARCH FOR METHOD				5. FUNDING NUMBERS	
6. AUTHOR(S) MAJOR REX A. ESTILOW USMC					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) SCHOOL OF ADVANCED MILITARY STUDIES ATTN: ATZL-SWU FORT LEAVENWORTH, KANSAS 66027-6900 COM (913) 684-3437 AUTOVON 552-3437					
8. PERFORMING ORGANIZATION REPORT NUMBER				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)					
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) SEE ATTACHED					
14. SUBJECT TERMS CAMPAIGN PLANNING CAMPAIGN DESIGN CAMPAIGN METHODOLOGY				15. NUMBER OF PAGES 45	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED		

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

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ABSTRACT

This monograph analyzes the Marine Corps' method for campaign design. It seeks to answer the research question: Is the Marine Corps' campaign design process found in FMFM 1-1 adequate? If not, the campaign design process will produce failure; but, if Marine Corps' campaign planning doctrine is adequate, it could serve as a basis for emerging joint doctrine.

The criteria for adequacy is the "Feasibility Acceptability Suitability" Test. Applied to a campaign plan, the test seeks to answer the following questions: Are mobilized and usable resources sufficient for implementing the campaign plan? Will political leaders support the campaign plan? Will the campaign plan (if properly executed) attain, promote, or protect the political aim?

In their comprehensive survey of campaign planning by the various CINCs, Mendel and Banks reported that no commonly accepted joint doctrine existed for campaign planning. They recommended a series of "Tenets for Campaign Planning". Intended to elevate campaign planning to the operational level, these tenets began to explore the thought process behind campaign plan development. Recently, JCS Test Pub 3-0, Doctrine for Unified and Joint Operations, offered another tactical five paragraph order format for campaign design. These two methodologies frame an argument in campaign design that dates back to the works of Clausewitz and Jomini.

Clausewitz and Jomini provided the classic theory in campaign design. Paradoxically, though both drew heavily on the success of Napoleonic method, their views diverged on campaign design methodology. Clausewitz advocated an intuitive thought process to guide future generations in campaign design. Jomini proffered a more mechanical, almost mathematical, campaign system.

The campaign design process, presented in FMFM 1-1, clearly favors a Clausewitzian process over Jominian system. Campaigning's provisions for conceptual, functional, and detailed designs probably are better than the system, recommended by JCS Test Pub 3-0, Doctrine for Unified and Joint Operations. FMFM 1-1 goes beyond the tenets of Mendel and Banks and deserves consideration as an excellent basis for the development of joint campaign planning doctrine. However, in advancing too strongly the Marine Corps' maneuver warfare philosophy, Campaigning may have missed some key theoretical concepts.

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INTRODUCTION

The spectacular military success of Operation Desert Storm highlights the vital necessity of adequate campaign planning for victory in modern war. Campaign planning provides the blueprint for the successful practice of operational warfare. Since no current joint doctrine exists for the design of campaigns; however, each of the CINCs uses a different method for campaign design. Only one service has issued detailed doctrinal guidance for campaign design. Fleet Marine Force Manual (FMFM) 1-1, Campaigning, seeks to establish the authoritative and doctrinal basis for military campaigning in the Marine Corps. It attempts to resolve for the Marine Corps a search for method in campaign planning that is not new to the art of war.

Codification of campaign planning in modern warfare may have begun with Napoleon. The Emperor described a five-step process for planning campaigns. First, the campaign planner clearly defined the campaign objective and directed all fighting resources toward it. Next, the enemy's main army received primary attention as the foremost campaign objective. Third, Napoleon advocated campaigns which thrust at the enemy flank and rear. Fourth, the campaign dislocated the enemy from his lines of communication. Finally, Napoleon emphasized the necessity of protecting one's

own lines of communication. In this manner, Napoleon sought to visualize the entire campaign as a whole with a single theme passing through each phase. (1:162)

Successive generations of theorists and practitioners have sought to identify a methodology for successful campaign planning. Carl von Clausewitz and Henri Jomini provided the classic theory in campaign design. Paradoxically, though both drew heavily on the success of Napoleonic method, their views diverged on campaign design methodology. Clausewitz advocated an intuitive thought process to guide future generations in campaign design. Jomini proffered a more mechanical, almost mathematical, campaign system. Modern theorists and practitioners have drawn heavily from both of these classic writers.

In his article "The Loose Marble-and the Origins of Operational Art", modern theorist James Schneider stated that modern operational art began with the campaigns planned by U.S. Grant in the American Civil War. (17:90) Grant's innovative use of deep penetrating raids attacked and destroyed the logistics base of the Confederacy. (7:686) This was new to the art of war; but, little exists on Grant's actual campaign design methodology. Some system or process must have guided the formulation of his campaign plans. Only then could Grant successfully cope with the complex deployment of several field armies distributed in breadth and depth

throughout the same theater of operations. (17:90)

Modern theorists Mendel and Banks surveyed the campaign design methodology of the various CINCs. They found that each of the CINCs used a different methodology for campaign planning. Many of these methodologies were as poorly documented as Grant's. (12:1) Shockingly, some of the CINCs had no established methodology for campaign planning at all. (12:xi) In March 1991, all of the services held a preliminary conference to develop joint doctrine for campaign planning. They staffed for service comment JCS Test Pub 3-0, Doctrine for Unified and Joint Operations, which provides only a five paragraph order format for campaign planning. Just as joint doctrine has taken this recent first step in the search for method in campaign planning, the Marine Corps has also recently published an alternative campaign design process.

This monograph analyzes the Marine Corps' method for campaign design. It seeks to answer the research question: Is the Marine Corps' campaign design process found in FMFM 1-1 adequate? If not, the campaign design process will produce failure; but, if Marine Corps' campaign planning doctrine is adequate, it could serve as an appropriate basis for emerging joint doctrine.

The criteria for accessing adequacy of campaign planning doctrine is the "Feasibility Acceptability Suitability" Test. This test was developed originally

by the U.S. Army Command and General Staff College to analyze strategic options. Applied to a campaign plan, the test seeks to answer the following questions: Are mobilized and usable resources sufficient for implementing the campaign plan? Will political leaders support the campaign plan? Will the campaign plan (if properly executed) attain, promote, or protect the political aim? Before any campaign design methodology can be considered adequate, it should make provisions to produce campaigns which address these critical issues.

The next section of the monograph assesses the Mendel and Banks' survey of modern campaign planning by each of the CINCs. It explores the relationship of their findings and the campaign design recommendations of JCS Test Pub 3-0. This relationship frames an argument in campaign design methodology that dates back to the works of Clausewitz and Jomini. This section analyzes the works of these military theorists and others, who are studied at the School of Advanced Military Studies. The purpose is to extract any insight or benefit from theory on campaign design.

The third section of the monograph provides two historic examples of campaign planning. The Schlieffen and the Sichelshnutt Plans shared the same strategic aim and campaign objective. Yet, one failed miserably while the other was fantastically successful. This

section seeks to identify any factors of campaign design that may have contributed to this difference.

Next, the monograph analyzes the campaign design process provided in FMFM 1-1, Campaigning. The purpose is to examine the Marine Corps' design process in light of the lessons of theory and history. This section seeks to determine whether Marine Corps' doctrine provides an adequate methodology for producing feasible, acceptable, and suitable campaign plans.

The final section presents conclusions and recommendations. This section illuminates how well the Marine Corps has prepared doctrinally to plan successful campaigns by answering the research question. It highlights those provisions of FMFM 1-1, Campaigning, which may serve as an appropriate basis for joint campaign planning doctrine. This section also makes recommendations, taken from classic theory, for improvements to the thought process described in FMFM 1-1.

THEORISTS' VIEWS ON CAMPAIGN DESIGN

While researching a course of instruction on campaign planning for the Army War College, Colonel W. W. Mendel and LTC F. T. Banks Jr. conducted an extensive survey of campaign planning at various Unified, Army, and Allied Commands. Combined with a detailed review of campaign planning literature, this 1988 survey enabled Mendel and Banks to make several observations on the state of campaign planning throughout the armed forces. They also developed a series of "tenets", which they recommended to serve as the basis of any campaign design methodology.

Mendel and Banks discovered numerous problems with campaign planning among the various CINCs and their staffs. In addition to differing views on the purpose of a campaign plan, no clear understanding existed of who should prepare a plan or what format or process to use. (12:89) No officially accepted joint doctrine existed for campaign planning. CINCs, who did prepare campaign plans, used a variety of personality dependent methodologies. Some CINCs prepared no campaign plans at all. (12:91) Mendel and Banks found that the only common thread to those methodologies used was the traditional command and staff action procedure. (12:95)

Most commands designed their campaigns with the tactical, five paragraph field order format: Situation;

Mission; Execution; Administration and Logistics; Command and Signal. (12:98) Unfortunately, these essentially tactical systems and formats were not accompanied by any consistent guidance on the thought processes required to elevate them to the operational level. Mendel and Banks found that these tactical systems could produce adequate campaign plans only if augmented by certain tenets, which guided a more operational thought process. (12:101)

Mendel and Banks recognized the CINC's obligation to "operationalize" broad strategic guidance into operational direction. (12:101) They called for development of joint doctrine to establish a common methodology for campaign planning. This joint doctrine needed to move beyond tactical formats; and as a minimum, embrace these "Tenets of a Campaign Plan":

- Provides broad concepts of operations and sustainment to achieve strategic military objectives in a theater of war or a theater of operations; the basis for all other planning.

- Provides an orderly schedule of strategic military decisions; displays the commander's vision and intent.

- Orients on the enemy's center of gravity.

- Phases a series of related major operations.

- Composes subordinate forces and designates command relationships.

- Provides operational direction and tasks to subordinates.

- Synchronizes air, land, and sea efforts into a cohesive and synergistic whole; joint in nature. (12:100)

JCS Test Pub 3-0, Doctrine for Unified and Joint Operations, was designed to answer the call for joint campaign planning doctrine. Although Mendel and Banks' tenets began to look at the thought process behind the format in campaign planning, JCS Test Pub 3-0 provided only a cursory review of those items. (8:III-8) It encouraged the campaign planner to recognize important theoretical considerations like centers of gravity or lines of operation; but, gave no guidance to the thought processes required to correctly select these conceptual elements for a specific campaign situation. (8:III-6) JCS Test Pub 3-0 made no provisions to "operationalize" the five paragraph order format in accordance with the tenets of Mendel and Banks. Its campaign plan format called for the same systematic checklist of items that was required at the lowest tactical levels. (8:C-1)

While Mendel and Banks have emphasized the importance of thought process in developing campaign plans, JCS Test Pub 3-0 merely provided a systematic format for joint campaign planning doctrine. This divergence in campaign planning methodology is not new. In the search for campaign planning method, this divergence began with the classic theorists, Clausewitz and Jomini.

One of Clausewitz' principle reasons for writing On War was to explain his design process for campaign

planning. (6:173) His "Two Letters on Strategy" dealt exclusively with operational, campaign planning questions. (6:174) Throughout both of these works, Clausewitz recommended a flexible, intuitive campaign design process to guide future generations in campaign design. His chief 19th century rival, Jomini, emphasized a more rigid campaign design system. The thoughts of the classic theorists on campaign design are complemented by modern theorists and writers like Schneider, Mendel, and Banks.

These modern theorists carry forward today the divergence in views on campaign design between Clausewitz and Jomini. Schneider, in The Theory of Operational Art, offers a more systematic approach to campaign planning that relies heavily on Jomini. (18:1) The Mendel and Banks' tenets of a campaign plan reflect the beginning of more Clausewitzian campaign design process. (12:100) No matter what school of design, many theorists have contributed cogent thoughts for the development of feasible, acceptable, and suitable campaign plans. These thoughts provide relevant theoretical insights for campaign design. They can serve as a foundation for modern campaign design methodology.

Clausewitz devoted only minor attention to feasibility of campaign plans. He viewed mobilization and supply (feasibility) as part of the preparation for

war. (2:127) Clausewitz focused his major work, On War, on the conduct of war. (2:132) In "Two Letters on Strategy", however, he stated that the means available or mobilized were as important as the political purpose in determining the "military" or campaign objective. (3:10) The means available would circumscribe the method of all but the military genius in operations. (2:136)

Clausewitz recommended strongly that the campaign planner should participate closely with the political leader in making resource decisions. How much to mobilize depended on one's political aim with respect to that of the enemy. (2:585) However, the focus of recruitment, clothing, arming, and training depended on the types of campaigns anticipated. (2:95) None of the other classic theorists nor the modern writers have discussed greatly the preparation for war aspects of feasibility in campaign planning. They recognized the need for close civil-military relationships; but, their purpose was to ensure the acceptability of campaign plans.

The acceptability of campaign plans drew a great deal of attention from each theorist. Clausewitz was perhaps the first theorist to emphasize the paramount importance of military campaigns serving political ends. He emphasized acceptability of campaign plans in his "Two Letters on Strategy":

War is not an independent phenomenon, but the

continuation of politics by different means. Consequently the main lines of every major strategic (operational) plan are *largely political in nature*, and their political character increases the more the plan applies to the entire campaign or to the whole state. (3:9)

At the other end of the spectrum the ancient Chinese theorist, Sun Tzu, advocated that "some commands of the sovereign must not be obeyed." (19:43) This wide divergence in views generally is not shared today. Most modern writers tend toward Clausewitz' teachings on acceptability.

Jomini recognized that the Commander, who was planning a campaign, must first settle with the political head of state "the nature of the war to be made". (9:76) Schneider echoes Jomini and emphasizes that the military end state (campaign objective) is the single most important decision of the campaign planner. (18:17) He also acknowledges the importance of the political aim on this military end state (campaign objective). Mendel and Banks recognize the important role of the CINCs in translating strategic, political guidance to operational (military) objectives. (12:101) Clausewitz provides the most convincing rationale for the importance of acceptability in campaign planning.

For Clausewitz, the political aim remained the focal point for planning and executing campaigns:

War is nothing but the continuation of political efforts by other means. For me this idea forms the basis for all strategy (operations), and I believe that whoever refuses to recognize its necessary truth does

not yet fully understand what really matters.(3:9)

The campaign plan had to begin with a clear understanding of the political aims of both sides.

(3:2) Furthermore, throughout the campaign the military effort had to remain consistent with the political aim. "Generally speaking, a military objective that matches the political object in scale will, if the latter is reduced, be reduced in proportion."(2:81) The magnitude and the duration of the military effort only had value with reference to the political aim. (2:92) Even the distinction between limited and unlimited or total war was the political aim and not the magnitude of forces or weapons used. (2:22)

Clausewitz' theoretical foundation for the primacy of the political aim in campaign planning was the rationality provided by political leaders (government) over the military leaders (army) in his paradoxical trinity. (2:51) This relationship contained a certain reciprocity; however, the statesman and the campaign planner together had to recognize correctly the general strategic situation (2:88) The statesman ensured that the political aim was never dominated by the military object. (2:56) The campaign planner advised his political leader when military means were called upon to achieve political aims for which military force alone was inconsistent or insufficient. (2:87) In this manner military campaigns remained constantly congruous

with their political purpose; but, political acceptability alone did not ensure a campaign's success. (2:6) For this, suitability was also required from the campaign's design.

The preponderance of the theorists' works involved suitability: Will the campaign plan (if properly executed) attain, promote, or protect the political (strategic) aim? Clausewitz and Jomini diverged widely in their views for developing suitable campaign plans to achieve the political (strategic) aim. This divergence has contemporary importance because it continues with modern theorists and practitioners of campaign planning.

Jomini advocated a systematic approach, while Clausewitz recommended a campaign design process. For Jomini, campaign planning was "merely the art of making war on the map". (9:79) It required the application of a system of geometric principles, that left the campaign planner three simple choices for operational maneuver:

It seems that every question of strategic (operational) movement, as well as tactical manoeuvre, would always be reduced to knowing whether we ought to manoeuvre to the right, to the left, or directly to the front; the choice between three alternatives so simple, could not be worthy of a new sphinx. (9:82)

Alternatively, Clausewitz focused on a few basic but unique elements for each campaign.

He listed five basic elements for campaigns: moral

or intellectual and psychological influences; physical or size and composition of forces; mathematical or lines of operation and supply; geographical or regional influences; and statistical or transportation and logistics. (2:183) For Clausewitz, each campaign plan had to resolve the unique confluence of these elements in any specific, interactive, military situation. This required a thought process for campaign design, rather than a system of principles.

After understanding the political aim, Clausewitz directed the campaign planner to focus on the military (campaign) objective. The campaign planner must determine what would "put the enemy military forces in such a condition that they no longer could carry on the fight". (2:90) An unlimited political aim, like the liquidation of the enemy state as a political entity, would require complete overthrow of his military forces and occupation of his country. A limited war of lesser political aims could be won with a more moderate use of military force. The political interest, then, determined the type and scale of the military effort; but, no matter what the political aim, the campaign planner sought a military (campaign) objective which put the enemy armed forces in an appropriate state of military disadvantage.

For Clausewitz, destruction of the enemy armed forces best guaranteed this disadvantage. (2:97)

Clausewitz gave careful guidance to the campaign planner for selection of the best military (campaign) objective. The center of gravity represented the source of cohesion, the hub of power, normally embodied in the enemy's main fighting forces. (2:485) Other centers of gravity or multiple centers of gravity were possible, but not probable. Clausewitz suggested the enemy capital, a key province, or a key leader under certain circumstances. (2:596) He emphasized that the concept of center of gravity was relevant only with reference to rendering the enemy incapable of continued military resistance. (2:486) He conveyed this capability with his concept of a sphere of influence for each victory.

Clausewitz proposed that each victory on the battlefield exerted an influence on the enemy commensurate with the scope of the victory. This sphere of influence of a victory gave the campaigner temporary momentum or the opportunity to retain the initiative. If the victory were over the enemy's true center of gravity, peace would ensue because the military (campaign) objective and the political aim would have been attained. Other battlefield victories needed to have a sphere of influence which included the enemy's center of gravity. (2:485) Otherwise, these battles should not be fought because success would not lead to the military (campaign) objective or political aim.

For Clausewitz, correctly identifying the true

center of gravity posed the key problem for the campaign planner. If necessary, he must resolve apparent multiple centers of gravity to a single predominant one. (2:618) Only then could the campaign planner focus his total theater efforts toward military objectives, which directly led through the campaign objective to the political aim, e.g. peace. Clausewitz noted that for situations in which the apparent centers of gravity could not be reduced to one, the campaign planner may be faced with more than one campaign or war. (2:597) Once the center of gravity issue was resolved, Clausewitz and Jomini offered their fundamentally different methods for designing campaigns.

Jomini would have the campaign planner methodically study the theater, select offense or defense, then select a base, objective points, decisive points, and lines of supply. (9:77) Clausewitz rejected this. Any method of campaign planning that relied on a "system" of formats, rather than a mental reasoning process, would be "synthetic and useless". (2:136) Clausewitz railed against mechanical systems of campaign planning, which normally produced plans that outlived the situation giving rise to them. (2:154) He despaired that such systems for campaign design replaced thought with jargon, technicalities, and metaphors. (2:168) For Clausewitz, the campaign plan

must account for each of the five elements, interaction with a thinking enemy, and the uncertainty born of fog and friction. (2:137-140) This is the fundamental divergence in views, which has been carried forward today in the search for method in campaign planning.

The campaign design methodology, published in JCS Test Pub 3-0, offers an essentially Jominian format to systematically list the elements of a campaign. This campaign plan format merely applies tactical considerations to the operational level of war. Mendel and Banks suggest that this is not enough: tactical formats must be leavened with their Tenets for a Campaign Plan to guide the campaign planner in "thinking operationally". (12:100) The next section presents two historic examples to illuminate the impact campaign design methodology may have on the adequacy of campaign plans.

HISTORIC CONSIDERATIONS FOR CAMPAIGN DESIGN

The Schlieffen and Sichelschnitt Plans provide excellent historical examples for studying campaign planning. The famed Schlieffen Plan provided the blueprint for the German's failed attack into Western Europe in the First World War. The Sichelschnitt Plan conceptualized the successful Manstein variation of the Schlieffen Plan, which Germany used to overrun Western Europe in World War II. (16:15)

These Plans were selected for exploration because each is well documented. Gerhard Ritter's seminal study of Von Schlieffen's original planning documents thoroughly examined Von Schlieffen's campaign planning system. Von Manstein in Lost Victories has provided us with a look at his thought process for the campaign design of the Sichelschnitt Plan.

Each campaign plan sought to establish operational maneuver on the "modern" battlefield. Each envisioned combined arms operations to overcome static warfare conditions, while opposing formidable defenses enhanced with the technology of automatic weapons. Both plans had the same political aim: elimination of France as a strategic threat to Germany. Each sought to avoid a two front war situation.

The campaign plans also shared the same campaign objective: rapid annihilating victory through crushing

operational envelopment of all French forces. In execution the Schlieffen Plan failed; however, while the Sichelschnitt Plan succeeded beyond expectation. Before analyzing the possible role of campaign design to outcome, these plans must briefly be reviewed along with their connective link, Plan Yellow.

The Schlieffen plan as modified by Chief of the German General Staff, Helmuth Von Moltke II, was executed in August and September of 1914. Five German armies formed the right wing, attacking through neutral Belgium and Luxembourg and into northern France. The operational envelopment attempted to swing on Paris like a huge door, hinged on Luxembourg with its extreme right edge passing through Liege. This operational maneuver would isolate Paris and trap French forces to the southeast. In execution the the Schlieffen Plan failed with the attack stalling along the Hindenburg line for three long years of static warfare. (5:183) But, the plan only narrowly failed and made France not Germany the major battleground. (5:100)

Plan Yellow, the original German plan for the invasion of Western Europe in 1939, lacked boldness in its superficial resemblance to the 1914 attack. (5:182) While one army group executed a fixing attack through Luxembourg on French fortress troops, the main attack would cross the frontier through Belgium and the Netherlands. On reviewing this plan Von Manstein said,

"I found it humiliating, to say the least, that our generation could do no better than repeat an old recipe". (10:98)

The foundation of Von Manstein's critique rested on the changes in the major Clausewitzian elements for a campaign in 1939 from 1914 . First, the strategic surprise achieved in 1914 no longer held promise. Second, a repeat of French premature action through the Lorraine seemed unlikely because they would immediately recognize the necessity of meeting a Schlieffen-like attack in the Low Countries. Finally, the tank had the effect of changing geography. Urban sprawl in the Low Countries now debarred modern mobile columns more than the Ardennes. These differences prompted Manstein to change another Clausewitzian element of the campaign: the German lines of operation. (10:99)

Von Manstein, described by his contemporaries as Germany's most able and brilliant General in World War II, recognized these changes in warfare from World War I. He correctly assessed their effects on Germany's operational situation. He foresaw that Von Schlieffer's enveloping sweep from the north would constitute a frontal attack in 1939. (10:26) Von Manstein's variation of the Schlieffen Plan promised both boldness and subtlety. (5:182) The northern Army Group B invaded the lowlands inducing the Allies to commit their mobile reserves to that sector. The main German attack from

the southern Army Group A occurred from the unexpected direction of the Ardennes. It drove to the Channel, cutting off the main Allied forces. (13:65) The Sichelshnitter plan worked exactly as Manstein had proposed, causing French capitulation within four weeks. (13:67) With these brief sketches of the Schlieffen and Sichelshnitter Plans in mind their adequacy can be analyzed.

The operational key to military success for the Schlieffen Plan relied on the rapid isolation and reduction of Paris. Paris offered cover for the concentration of French formations and a rail network, which enabled the French to quickly shift forces on interior operational lines. This would enable the French to win a race to the sea against foot mobile German forces on external operational lines. (14:63) Von Schlieffen predicted the need for eleven corps to envelope and to invest Paris; but, this strength never existed in reality. (14:61)

Such a critical lack of mobilized resources rendered the Schlieffen Plan not feasible. (15:3) The principle cause of this infeasibility was Von Schlieffen's steadfast refusal to seek any decisive influence over peacetime armament or force structure decisions. (15:194) Alternatively, he refused to allow study of any other more feasible plans. (15:205) Schlieffen's ignorance of things political also caused

acceptability problems for his plan.

Von Schlieffen, facing the strategic possibilities of a two front war, decided early on a purely military solution to this political situation. (14:97) This lead to the design of a campaign plan, which should have failed the acceptability test. The key flaw to the Plan's design was the violation of neutral Belgium and The Netherlands. This created more enemies than the German forces could handle. (15:205) Convinced of Britain's historic reluctance to fight on the Continent, Von Schlieffen never considered the possibility of Britain entering the fray even though there were strong political indicators to the contrary. (14:69)

Though German statesmen were aware of the political ramifications of the Schlieffen Plan, they capitulated to the exigencies of military planning. (15:194) Baron von Holstein of the German Foreign Ministry typified the flawed political-military thinking: "If a strategic (military) authority like Schlieffen requires it, diplomacy must give way." (14:91) Von Moltke II in executing the Schlieffen Plan attempted to ameliorate its political dangers by excluding neutral Netherlands from invasion; however, the political damage already had been done. (4:120)

Von Manstein faced neither the acceptability nor the feasibility problems of Von Schlieffen. First, the

Sichelschnitt Plan possessed political acceptability. Due to the diplomatic efforts of 1939, Germany avoided for a brief but vital time a two front war. (5:274) Second, changes in technology and doctrine for the Army's mobility effectively provided Germany with a margin of superiority in mobilized resources. (14:7) Infantry formations could move twice the daily distance of similar formations of World War I. (5:103) Von Manstein's Sichelschnitt Plan thus encompassed an acceptability and feasibility, which the Schlieffen Plan did not possess.

Beginning with the same political aim and campaign objective, Von Schlieffen and Von Moltke produced different plans. These plans also proved dissimilar in terms of suitability. The Schlieffen Plan failed to obtain its political aim, while the Sichelschnitt Plan succeeded dramatically. The more flexible Sichelschnitt Plan evolved from the mind of a more intuitive campaign planner. (11:25;13:242) Conversely, the Schlieffen Plan has received much criticism for its rigidity. (14:50) This sprang naturally from Von Schlieffen's Jominian planning system. Contrary to the philosophy of Clausewitz, Von Schlieffen had a standard solution to every operational problem because of his dogmatic drive for the modern Battle of Cannae. (22:69-70)

Von Schlieffen first conceived of total victory in the west in 1892. (15:199) From that point forward,

refinement of the Schlieffen Plan consumed him until his death in 1912. His dying words were reputed to have been, "It must come to a fight. Only make the right wing strong." (14:8) Von Schlieffen attempted to eliminate the effects of chance, friction, and an interactive enemy through tight control of execution at the highest level. This control began with careful attention to detail, making the Schlieffen Plan a showpiece of German General Staff work. (14:48)

By the time Von Schlieffen left the Chief of Staff's office in 1905, his Plan provided a detailed choreography of the campaign throughout all phases. (15:200) Such rigidity in campaign design could not meet the rigorous demands of practice of the military craft. (15:208) As a result, Von Schlieffen's campaign design system produced a plan which did not have a surplus of chances for success. (14:66) No flexibility existed to cope with enemy interactions or frictions that could not be anticipated.

Von Manstein's method for campaign planning differed from Von Schlieffen's campaign design system. Manstein's campaign design process began with careful study and an intuitive grasp of the essence of the specific operational situation. From this he produced a conceptual solution. It was left to his staff to determine to what extent intuition could be put to practice. (9:25) As a campaign planner, Von Manstein

was farsighted. He quickly and correctly assessed his own and enemy capabilities and intentions. (16:xiv) His campaign planning process produced plans with maximum flexibility. (11:36)

Unlike Von Schlieffen, Von Manstein did not attempt to rigidly control away all enemy interaction and friction. Instead, he viewed friction as a potential ally. He designed plans which sought to induce as much friction as possible in the enemy forces. (22:258) Von Manstein minimized the negative impact of friction and an interactive enemy on his own forces through an intelligent command process, rather than inflexible control. This command process trained subordinates to independently react to changed situations within the concept of Von Manstein's overarching campaign design. (11:21-24)

In Lost Victories, Von Manstein described his own campaign design process for the Sichelschnitt Plan. Understanding the political aim of removing France as a strategic threat to Germany, he determined that the campaign objective must be the rapid annihilation of French forces. Any lesser campaign objective "justified neither the political hazards nor the military stakes involved". (10:103) He intuitively divined that even if Plan Yellow were successful, the frontal nature of the attack would not provide the rapid victory required. (8:104) For Von Manstein it became obvious that the

only suitable campaign concept constituted a surprise attack through the Ardennes. (10:104)

Von Manstein carefully selected supporting military objectives and allocated resources to produce a campaign plan from this concept. These military objectives focused on the enemy center of gravity. The defeat of this would concede Von Manstein's campaign objective. (10:104) Von Manstein carefully avoided Von Schlieffen's mistake of producing a campaign plan, which could not be supported tactically. Before Von Manstein completed the Sichelschnitt Plan, he carefully validated his concept of an armored thrust through the Ardennes. Germany's foremost armor expert, Guderian, and subsequent war games attested to the Plan's suitability. (22:258)

Unlike Von Schlieffen, Von Manstein designed his campaign plan so that success in one phase served a "spring board" for the next phase. (10:100) For example, a series of special operations secured key forts, rail junctions, road nets, and ports. These carefully designed tactical battles specifically supported the operational maneuver of latter phases. (5:200) But again unlike Von Schlieffen, tactical successes were not bound by a tightly scheduled script. In Von Manstein's campaign design, commanders had to prepare to change tactical plans minute by minute in the face of opposition from an interactive enemy.

(5:152)

This comparison of the Schlieffen and Sichelschnitt Plans suggests that campaign design methodology may have something to do with the adequacy of campaign plans. Certainly, major political and military changes had occurred during the three decades which intervened between the two campaigns. Politically, German diplomacy had removed acceptability problems for the Sichelschnitt plan. Military technology had vastly changed between wars; but, the relative balance between German and French forces remained essentially the same. It was in employment of that technology that Germany gained its feasibility advantages for the Sichelschnitt Plan. Regardless of the these differences, the Schlieffen and Sichelschnitt Plans attempted to solve essentially the same campaign situations.

The political aim, eliminating France as a threat, and the campaign objective were the same for both plans. Both plans focused on the rapid annihilation of French forces through a crushing operational envelopment. Obviously, the plans were not equally suited to the task. Some of this difference can be traced to campaign design methodology. Von Schlieffen's essentially Jominian, systematic approach stands in rigid contrast to Von Manstein's more Clausewitzian campaign design process. Von Manstein was better

prepared to deal with Clausewitz' five elements, interaction with a thinking enemy, and the uncertainty born of fog and friction.

Since the unique confluence of these features must be accommodated in any specific campaign situation, perhaps this historic example holds an important lesson for campaign planning doctrine. Mendel and Banks may have correctly recommended that planning formats need augmentation. Campaign planners may need tenets or even theoretical concepts to guide their analysis before they reduce their campaign plans to the tactical format of JCS Test Pub 3-0. The next chapter examines the U.S. Marine Corps' new campaigning doctrine, which makes just such an attempt to move beyond tactical formats for campaign planning.

ANALYSIS OF MARINE CORPS' CAMPAIGNING DOCTRINE

Published 25 January 1990, FMFM 1-1, Campaigning, critically examines the campaign as the connective link between tactical victory and strategic success. Campaigning explicitly recognizes that tactical success does not guarantee victory in war. FMFM 1-1 cites failures at the operational level as the chief cause of the military failure in post World War II U.S. military history. It seeks to fill for the Marine Corps the doctrinal void discovered by Mendel and Banks. The Commandant of the Marine Corps introduced FMFM 1-1 to each Marine officer "to establish the authoritative and doctrinal basis for military campaigning in the Marine Corps". (21:Forward) The chief vehicle for this purpose rests with Campaigning's detailed campaign design model. But, the deeper purpose of Campaigning is to continue the change in Marine Corps' ethos begun with FMFM 1, Warfighting.

Campaigning seeks to rectify a chief causal flaw of the United States post World War II military debacles. Citing the American experience in Vietnam, Campaigning postulates that even a succession of tactical victories does not ensure attainment of political aims. (21:6) Without an operational concept, relative attrition becomes the only measure of success or failure. (21:11) Campaigning also recognizes an

important operational paradox. In wars of limited political aim, it is simultaneously more important and more difficult to establish an operational concept, which successfully links tactical missions to strategic aims. The tragic Marine experience in Beirut from 1982-1984 sadly demonstrated this paradox. (21:35)

The doctrinal void, highlighted by Mendel and Banks, posed important consequences for Marine Corps employment. The special capabilities of the Marine Air-Ground Task Force (MAGTF) demand operational understanding from Marines at all levels. First, Marine organic aviation provides the capability to shape operational events in advance of the close battle. Second, the MAGTF command and control organization provides a separate command element, which can focus on the operational conduct of the war. (21:28) Finally, the amphibious "first to fight" capability of special operations-capable MAGTFs in a contingency environment demands operational focus from all Marine commanders. (21:29)

In providing Marine Corps' doctrine for military campaigning, FMFM 1-1 seeks to continue the change in Marine Corps' ethos begun with FMFM 1, Warfighting. Campaigning provides a mental process for the application of the Commandant's maneuver warfighting philosophy established in FMFM 1. This emphasis on campaigning seeks to counter-balance the "spoiling for

a fight" mentality. Campaigning recognizes the fundamental need for resolute tactical focus on winning in combat; but, it seeks to clarify the operational desire to use combat sparingly. (21:87) Campaigning provides a methodology whose essence is determining when, where, and for what purpose to seek or decline battle. (21:7) The Marine Corps' campaign design process provides a mental framework for formulating feasible, acceptable, and suitable campaign plans.

Much like Clausewitz' "Two Letters on Strategy", Campaigning recognizes the importance of designing feasible campaigns: those for which mobilized and usable resources are sufficient for implementation. FMFM 1-1 recognizes the military commanders proper concern with the resource allocation role of strategy and the conditions strategy may impose on the commander's use of those resources. (21:8) A major weakness in Campaigning is the little guidance provided for situations in which feasibility problems exist.

Campaigning explicitly recognizes that MAGTFs face two critical feasibility limits on operational capability: First, the MAGTF structure provides mainly for tactical intelligence collection. Operational intelligence requirements rely almost exclusively on national assets for satisfaction. (21:74) Second, the MAGTF's organic logistical system is also primarily tactical in nature. MAGTFs face critical deficiencies

in two operational logistics capabilities: local procurement and intra theater delivery. (21:78) Unfortunately, Campaigning wrestles with these feasibility difficulties about as effectively as Von Schlieffen did in the development of his campaign.

In the face of feasibility problems, Campaigning recommends better leadership and austerity in execution. The MAGTF commander must establish effective relationships within joint and combined environments to overcome feasibility problems. (21:83) Also, leadership must develop the capability of their units to "operate without a cumbersome logistics tail". (21:81) This latter suggestion solves only tactical logistics problems, not the more pervasive operational logistics problems. The former recommendation only emphasizes the need for MAGTFs to operate in a joint environment; rather than independently as an "operational" force.

These recommendations fall short of accurately assessing and then solving feasibility problems during planning. The classic "good leaders do more with less" philosophy, while normally acceptable within the limited scope of tactics, fails at the operational level. Tactical economies created by "living off the land" did not reduce the operational feasibility problems of the Schlieffen Plan. This holds serious portent for U.S. forces operating in a contingency environment.

As the United States relies less on forward deployed forces and the prepositioned resources which accompany them, feasibility becomes an increased joint concern for campaign plans. The MAGTF, though capable of operational force projection, is not resourced for extensive operational logistics once employed. Logistics doctrine calls for support of extensive operations ashore by other services. This requirement for joint support must be explicitly considered by the campaign planner to produce feasible campaign plans.

In the development of acceptable campaign plans, FMFM 1-1 closely echoes Clausewitz. Campaigning explicitly recognizes the role of strategy in establishing political aims, allocating resources, and setting conditions. (21:8) It implicitly recognizes strategy as the guiding force of the government in providing rationality to warfare. As such, FMFM 1-1 sees the campaign as the military extension of that rationality by providing focus to the tactical encounters. (21:11) To continue this rationality the campaign plan must become a "living" document, fluid enough to adjust to political change. (21:51) Equally important, Campaigning cautions the commander on his critical responsibility to highlight political aims for which military force alone is insufficient or incompatible. (21:10) In addition to establishing these initial parameters for feasible and acceptable campaign

plans, FMFM 1-1 provides detailed guidance for producing suitable campaign plans.

The Marine Corps' campaign design process provides a mental framework to prepare campaign plans which attain, promote, or protect the political (strategic) aim. This process is distinctly Clausewitzian in nature and avoids most of Jomini's more geometric prescriptions. FMFM 1-1's campaign design process follows the intuitive logic applied by Manstein; but, its methodology provides even more specific guidance for the modern campaign planner.

Campaigning's design process provides guidance for determining the campaign's strategic aim, military end state, and operational objectives. It then discusses steps for determining the campaign's conceptual, functional, and detailed designs. This entire mental process produces a statement of the commander's design for prosecuting his portion of the war effort. From preparation, through a sequence of related operations, to a well defined end state, the campaign plan "guarantees" achievement of the strategic aim. (21:50) Though guarantee is a strong claim, a thoughtfully designed bridge between strategic aim and tactical action logically would enhance the probability of success.

The strategic aim, like Clausewitz' political aim, reflects the political conditions that the nation hopes

to achieve through its use of force. All elements of power (economic, diplomatic, psychological, technological and military) are applied by the National Command Authority to impose this policy. The goal for the military element of power becomes the military or theater strategic aim. This provides the single overriding element of campaign design. (21:33) Next, the campaign planner determines the desired end state or military conditions, which must be achieved to assure attainment of the theater strategic aim. The Sichelschritt Plan provides an example of this construct.

Germany's strategic aim in 1939 was avoidance of a two-front war against France and the Soviet Union. The diplomatic element of power temporarily provided this aim with the Soviet-German Pact. Germany hoped to achieve this aim more permanently with the military or theater strategic aim of eliminating France as a military threat. Von Manstein divined the military end state to achieve this theater strategic aim: rapid annihilation of all French fighting forces within the theater of operations.

The desired military end state is analogous to Clausewitz' military objective or to Von Manstein's campaign objective. Several military conditions may be necessary to reach this end state; therefore, FMFM 1-1 recommends further development of operational

objectives, which, taken in combination, achieve those conditions. (21:35) These operational objectives correspond with Von Manstein's military objectives. For example the Sichelschnitt Plan called for crushing the major French mobile reserves in the Low Countries. In the selection of these operational objectives, Campaigning makes its widest departure from Clausewitz and incurs a fundamental weakness.

Campaigning studiously avoids any discussion of the concept of center of gravity and only vaguely alludes to the Clausewitzian idea of sphere of influence of a victory. Campaigning's guidance on the selection of operational objectives focuses on the identification of "critical enemy factors". These factors represent those elements most important to enemy success in a theater; however, in deference to the ethos changing maneuver warfare philosophy, FMFM 1-1 directs the campaign planner to target only those critical enemy factors that represent vulnerabilities. (21:36) According to Campaigning, the campaign planner must search for gaps in the protection of critical enemy factors. While fighting smart demands avoidance of strength on strength operations wherever possible, Campaigning's guidance may diffuse the focus campaigns are designed to provide.

Ultimately, the campaign must remove the enemy's fighting forces from the theater. Though this removal

does not always have to be physical, Clausewitz' center of gravity concept would focus planning efforts on this removal more clearly than the critical enemy factors discussion in FMFM 1-1. Likewise, his guidance on a victory's sphere of influence would further refine the campaign planner's effort. Resolving the enemy situation within the theater to one center of gravity would enable the campaign planner to focus on the critical enemy factor, the removal of which delivers the theater strategic aim. There is no compelling reason to suppose that this will not be strongly protected; therefore, the campaign planner must look for an indirect approach to this center of gravity.

Less important critical enemy factors may provide this path. The campaign planner must determine which of the many less important critical enemy factors is most worthy of the campaign's scarce resources.

Understanding Clausewitz' concept of a victory's sphere of influence would assist this effort. Winning a battle for a critical enemy factor must have a marked impact on the enemy's center of gravity to be worth the expenditure of combat power. Since the essence of a campaign is deciding when and under what conditions to seek or decline battle, these two concepts could prove fundamental to those decisions. The campaign planner could better select those operational objectives, which inexorably lead to the military end state and

ultimately to the theater strategic aim.

Once the campaign planner has properly determined the theater strategic aim, military end state, and operational objectives, he must develop the campaign's conceptual design. This expresses the commander's vision for the campaign by stating in broad terms his intent. In capturing the essence of the campaign, this conceptual design provides the foundation for the more practical aspects of campaign planning. (21:38) This reflects Von Manstein's creative approach for disseminating a broad and bold vision for the campaign's intent. His Sichelschnitt Plan clearly expressed his intent of drawing the French mobile reserves into the Low Countries and then crushing them with a main attack from the unexpected direction of the Ardennes. According to FMFM 1-1, this concept must include an idea of when, where, and under what conditions the commander intends to give and refuse battle. From this intuitive concept springs the functional and detailed designs.

Functional design provides broad direction for those components necessary to support the concept: the subordinate concepts for deployment, logistics, command and control, employment, and sequencing. (21:40) These are expressed as intent statements from the major combat support and combat service support commanders. Event-oriented sequencing produces dynamic phases,

which achieve more than a string of attrition oriented tactical victories. Battles require sequencing to take full advantage of the temporary sphere of influence of each victory. Proper phasing preserves this initiative through tempo, but also recognizes operational pauses as a reality check with logistics. (21:46) The final step in FMFM 1-1's campaign design process is detailed design.

Detailed design includes specific planning activities to ensure that the campaign plan receives proper coordination. (21:40) These details can be accurately captured by the more tactical formats offered by JCS Test Pub 3-0 or currently used by some of the CINCs. Detailed design produces movement schedules, landing tables, deployment and resupply schedules, communications plans, etc. Thus, Campaigning brings the planner from the general concept to the specific requirements for producing a campaign plan, that is ready for execution.

FMFM 1-1, Campaigning, critically examines the campaign as the connective link between tactical victory and strategic success. It provides a more comprehensive thought process for prospective campaign planners than current joint doctrine. In establishing the authoritative and doctrinal basis for military campaigning in the Marine Corps, Campaigning continues the change in Marine Corps' ethos begun with FMFM 1,

Warfighting. The next section reflects on the addition
Campaigning has made to the body of current doctrine
for campaign design. It assesses the value of FMFM 1-1
to the modern campaign planner and makes
recommendations for the improvement of Campaigning and
on its use as a basis for joint campaign planning.

CONCLUSIONS AND RECOMMENDATIONS

The Marine Corps' campaign design process found in FMFM 1-1, Campaigning, generally provides adequate guidance for campaign planners. Adherence to the thought process of Campaigning will better enable planners to produce campaigns which are feasible, acceptable, and suitable. By embodying the appropriate theoretical and historic precepts, Campaigning applies reason to the battlefield by successfully linking tactical actions with strategic aim. The methodology of FMFM 1-1 transcends the stilted, systematic formats used by some CINCs. It provides more thoughtful guidance than the five paragraph field order format of JCS Test Pub 3-0, Doctrine for Unified and Joint Operations. However, FMFM 1-1's campaign design model may go too far in promoting the Marine Corps' maneuver warfare philosophy.

Campaigning provides a campaign design methodology, which clearly gives reasonable guidance for producing acceptable and suitable campaign plans; but like many of the theorists, FMFM 1-1 treats only superficially the question of feasibility. FMFM 1-1 highlights the absolute importance of producing a "living" campaign plan, which remains consistent with even changing political aims. The comprehensive design process provides great insight for producing plans that

attain, promote, or protect the political aim. FMFM 1-1's advice to employ better leadership and austerity in the face of feasibility problems; however, may not avoid the pitfalls faced by Von Schlieffen. Campaigning needs to be strengthened with more thoughtful attention to the feasibility question. Operational feasibility problems must be addressed adequately during campaign planning. They can not be solved with tactical measures during execution as suggested in FMFM 1-1.

FMFM 1-1 superbly highlights the critical importance of the operational level of war. It demonstrates the importance of the campaign plan for transmitting reason to the theater of war. The campaign plan provides the construct for determining when, where, and under what conditions to seek or decline battle. Campaigning tempers the "spoiling for a fight" tactical mentality with the operational imperative to choose battles wisely. Though in advancing the fighting-smart maneuver warfare philosophy, Campaigning may have missed some key theoretical concepts.

Campaigning leaves the mistaken impression that victory can be achieved by attacking only enemy vulnerabilities. The campaign design process would benefit from a clear presentation of Clausewitz' concepts of center of gravity and the sphere of influence of a victory. The primary purpose of the campaign is to efficiently choose battles, moving

inexorably toward the strategic aim. These two missing Clausewitzian concepts embrace a necessary thought process. They allow the campaign planner to take the indirect approach but remain focused on the most important source of enemy cohesion. The campaign planner wants to sequence battles, whose victorious spheres of influence includes the enemy's center of gravity. Campaigning's discussion of critical enemy factors does not provide enough clarity to keep the campaign design sharply focused.

Campaigning successfully avoids a prescriptive format for mechanically producing a campaign plan. The campaign design process, presented in FMFM 1-1, clearly favors Clausewitzian process over Jominian system. Its methodology provides a thought process reminiscent of Von Manstein or even Napoleon. Campaigning rejects fill-in -the-blank, five paragraph order formats. The provisions for conceptual, functional, and detailed designs probably are better for producing adequate campaign plans, than the system recommended by JCS Test Pub 3-0. FMFM 1-1, Campaigning, fulfills the tenets of Mendel and Banks and deserves consideration as an excellent basis for the development of joint campaign planning doctrine. Certainly, campaign planners would benefit from the understanding of classic and modern campaign theory imparted by FMFM 1-1, Campaigning.

SELECTED BIBLIOGRAPHY

1. Chandler, David G. The Campaigns of Napoleon. New York: MacMillan Publishing Co., 1966.
2. Clausewitz, Carl von. On War. translated by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1984.
3. Clausewitz, Carl von. "Two Letters on Strategy" edited and translated by Peter Paret and David Moran. Carlisle Barracks, Pennsylvania: Army War College, 1984.
4. Crevelld, Martin van. Supplying War. London: Cambridge University Press, 1977.
5. Deighton, L. Blitzkrieg. New York: Ballantine Books, 1979.
6. Handel, Michael I. editor. Clausewitz and Modern Strategy. "Two Letters on Strategy: Clausewitz' Contribution to the Operational level of War" by W. P. Franz. London: Frank Cass and Company, 1986.
7. Hattaway, H. and A. Jones. How the North Won: A Military History of the Civil War. Chicago: University of Illinois Press, 1983.
8. Joint Chiefs of Staff. JCS Test Pub 3-0, Doctrine for Unified and Joint Operations. Washington, D. C.: The Joint Staff, 1990.
9. Jomini, Baron de. Summary of the Art of War. translated by O. F. Winship and E. E. McLean. New York: G. P. Putnam and Co., 1854.
10. Manstein, Erich von. Lost Victories. edited and translated by A. G. Powell. Novato, California: Presidio Press, 1982.
11. Mellenthin, F. W. von. German Generals of World War II. Norman, Oklahoma: University of Oklahoma Press, 1977.
12. Mendel, W. W. and F. T. Banks. Campaign Planning. Carlisle Barracks, Pennsylvania: U. S. Army War College, 1988.
13. Mitcham, S. W. Jr. Hitler's Field Marshals and Their Battles. Chelsea, Michigan: Scarborough House, 1990.
14. Ritter, G. The Schlieffen Plan. New York: Praeger Co., 1958.

15. Ritter, G. The Sword and the Scepter. Vol.II. translated by H. Norden. Coral Gables, Florida: University of Miami Press, 1965.
16. Sadarananda, D. V. Ph.D. "The Genius of Manstein". Ph.D. dissertation, University of Michigan, 1987.
17. Schneider, J. J. "The Loose Marble- and the Origins of Operational Art". Parameters. March 1989, pp. 85-99.
18. Schneider, J. J. The Theory of Operational Art. Fort Leavenworth, Kansas: U. S. Army Command and General Staff College, 1988.
19. Sun Tzu. The Art of War. translated by S. B. Griffith. London: Oxford University Press, 1963.
20. U. S. Army. Jomini, Clausewitz and Schlieffen. Art of War Colloquium. Carlisle Barracks, Pa.: U. S. Army War College, 1983.
21. U. S. Marine Corps. FMFM 1-1, Campaigning. Washington, D. C.: Department of the Navy, 1990.
22. Wallach, Jehuda L. The Dogma of the Battle of Annihilation. Westport, Connecticut: Greenwood Press, 1986.